SEQUENCE LISTING

<110> TAKEDA CHEMICAL INDUSTRIES, LTD.
SHIMOMURA, Iichirou

<120> Novel Protein

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<151> 2003-06-16

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<170> PatentIn version 3.2

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ctg aca ctg tgg agc tca gga aaa gtc ctc tca gta gat gta aca aca       96
Leu Thr Leu Trp Ser Ser Gly Lys Val Leu Ser Val Asp Val Thr Thr
            -10                 -5                  -1  1

aca gag gcc ttt gat tct gga gtc ata gat gtg cag tca aca ccc aca      144
Thr Glu Ala Phe Asp Ser Gly Val Ile Asp Val Gln Ser Thr Pro Thr
    5                   10                  15

gtc agg gaa gag aaa tca gcc act gac ctg aca gca aaa ctc ttg ctt      192
Val Arg Glu Glu Lys Ser Ala Thr Asp Leu Thr Ala Lys Leu Leu Leu
20                  25                  30                  35

ctt gat gaa ttg gtg tcc cta gaa aat gat gtg att gag aca aag aag      240
Leu Asp Glu Leu Val Ser Leu Glu Asn Asp Val Ile Glu Thr Lys Lys
                40                  45                  50

aaa agg agt ttc tct ggt ttt ggg tct ccc ctt gac aga ctc tca gct      288
Lys Arg Ser Phe Ser Gly Phe Gly Ser Pro Leu Asp Arg Leu Ser Ala
            55                  60                  65

ggc tct gta gat cac aaa ggt aaa cag agg aaa gta gta gat cat cca      336
Gly Ser Val Asp His Lys Gly Lys Gln Arg Lys Val Val Asp His Pro
        70                  75                  80

aaa agg cga ttt ggt atc ccc atg gat cgg att ggt aga aac cgg ctt      384
Lys Arg Arg Phe Gly Ile Pro Met Asp Arg Ile Gly Arg Asn Arg Leu
    85                  90                  95
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Met Leu Asp Trp Arg Leu Ala Ser Ala His Phe Ile Leu Ala Val Thr
                -25                 -20                 -15

Leu Thr Leu Trp Ser Ser Gly Lys Val Leu Ser Val Asp Val Thr Thr
            -10                 -5                  -1  1

Thr Glu Ala Phe Asp Ser Gly Val Ile Asp Val Gln Ser Thr Pro Thr
    5                   10                  15

Val Arg Glu Glu Lys Ser Ala Thr Asp Leu Thr Ala Lys Leu Leu Leu
20                  25                  30                  35

Leu Asp Glu Leu Val Ser Leu Glu Asn Asp Val Ile Glu Thr Lys Lys
                40                  45                  50

Lys Arg Ser Phe Ser Gly Phe Gly Ser Pro Leu Asp Arg Leu Ser Ala
            55                  60                  65

Gly Ser Val Asp His Lys Gly Lys Gln Arg Lys Val Val Asp His Pro
        70                  75                  80

Lys Arg Arg Phe Gly Ile Pro Met Asp Arg Ile Gly Arg Asn Arg Leu
    85                  90                  95

Ser Asn Ser Arg Gly
100


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<220>
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<400>  3
atg ctg gac tgg aga ttg gca agt aca cac ttc atc ctg gct atg att       48
Met Leu Asp Trp Arg Leu Ala Ser Thr His Phe Ile Leu Ala Met Ile
                -25                 -20                 -15

gtg atg ctg tgg ggc tca gga aag gca ttc tct gtg gac tta gca tca       96
Val Met Leu Trp Gly Ser Gly Lys Ala Phe Ser Val Asp Leu Ala Ser
            -10                 -5                  -1  1

cag gag ttt gga aca gca agc ttg cag tct cca ccc aca gcc aga gaa      144
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Gln Glu Phe Gly Thr Ala Ser Leu Gln Ser Pro Pro Thr Ala Arg Glu
    5                  10                  15

gag aag tca gcc act gag ctt tcg gct aag ctc ctg cgt ctt gat gat      192
Glu Lys Ser Ala Thr Glu Leu Ser Ala Lys Leu Leu Arg Leu Asp Asp
20                  25                  30                  35

ctg gtg tcc tta gag aat gac gta ttt gag acc aag aaa aag aga agc      240
Leu Val Ser Leu Glu Asn Asp Val Phe Glu Thr Lys Lys Lys Arg Ser
                40                  45                  50

ttc tct ggc ttt ggg tct ccc ctt gac aga ctc tca gct ggg tct gta      288
Phe Ser Gly Phe Gly Ser Pro Leu Asp Arg Leu Ser Ala Gly Ser Val
            55                  60                  65

gag cat aga ggg aaa caa agg aaa gca gta gat cat tca aaa aag cgg      336
Glu His Arg Gly Lys Gln Arg Lys Ala Val Asp His Ser Lys Lys Arg
        70                  75                  80

ttt ggt att ccc atg gat cgg att ggt aga aac cgg ctc tcc agt tcc      384
Phe Gly Ile Pro Met Asp Arg Ile Gly Arg Asn Arg Leu Ser Ser Ser
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aga ggc tga                                                         393
Arg Gly
100
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Val Met Leu Trp Gly Ser Gly Lys Ala Phe Ser Val Asp Leu Ala Ser
            -10                 -5                  -1  1

Gln Glu Phe Gly Thr Ala Ser Leu Gln Ser Pro Pro Thr Ala Arg Glu
    5                   10                  15

Glu Lys Ser Ala Thr Glu Leu Ser Ala Lys Leu Leu Arg Leu Asp Asp
20                  25                  30                  35

Leu Val Ser Leu Glu Asn Asp Val Phe Glu Thr Lys Lys Lys Arg Ser
                40                  45                  50

Phe Ser Gly Phe Gly Ser Pro Leu Asp Arg Leu Ser Ala Gly Ser Val
            55                  60                  65

Glu His Arg Gly Lys Gln Arg Lys Ala Val Asp His Ser Lys Lys Arg
        70                  75                  80

Phe Gly Ile Pro Met Asp Arg Ile Gly Arg Asn Arg Leu Ser Ser Ser
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Arg Gly
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<220>
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gacttagcat cacaggagtt tggaacagca agcttgcagt ctccacccac agccagagaa 180

gagaagtcag ccactgagct ttcggctaag ctcctgcgtc ttgatgatct ggtgtcctta 240

gagaatgac 249

<210> 8
<211> 30
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<213> Artificial Sequence

<220>
<223> Oligonucleotide designed to act as primer for amplifying full length mouse musculin cDNA.

<400> 8
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<210> 9
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<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide designed to act as primer for amplifying full length mouse musculin cDNA.

<400> 9
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actataaaaa cacagaaaga aactcgcatc agggctaagt ttgggataag ctgcaggcag 180

gactctaaag ttaggagctc tgacttctca caagatgctg gactggagat tggcaagtac 240

acacttcatc ctggctatga ttgtgatgct gtggggctca ggaaaggcat tctctgtgga 300

cttagcatca caggagtttg gaacagcaag cttgcagtct ccacccacag ccagagaaga 360

gaagtcagcc actgagcttt cggctaagct cctgcgtctt gatgatctgg tgtccttaga 420

gaatgacgta tttgagacca agaaaaagag aagcttctct ggctttgggt ctcccttga 480

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aggctgatgg attcttattg tgcgacttac ttgtgtgaga tggcacagaa ctatagaaga 660

cacttcagtg aagttcacta ccccttttgt caaggaattg gcctttcgca aaccttccca 720

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<213> Artificial Sequence

<220>
<223> Oligonucleotide designed to act as primer for amplifying full length human musculin cDNA.

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<210> 12
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
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<400> 12
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<210> 13
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acactgacac tgtggagctc aggaaaagtc ctctcagtag atgtaacaac aacagaggcc 180

tttgattctg gagtcataga tgtgcagtca acacccacag tcagggaaga gaaatcagcc 240

actgacctga cagcaaaact cttgcttctt gatgaattgg tgtccctaga aaatgatgtg 300

attgagacaa agaagaaaag gagtttctct ggttttgggt ctccccttga cagactctca 360

gctggctctg tagatcacaa aggtaaacag aggaaagtag tagatcatcc aaaaaggcga 420

tttggtatcc ccatggatcg gattggtaga aaccggcttt caaattccag aggctaattg 480

attccaatta tgcaacttcc ttgggtgaaa tgtcacagca atatggaaga tgcttcactg 540

aagttattca cacttcttaa tgattaaact tttaaggaac tgaccttctg caaatccttt 600

ccaaagcttg aacttcagtc catcacatta cggcattgtt acagcttcaa ttaaattgtg 660

taaatcattt tgatgcacgt acattttaaa attatatatt ttaattattc aagaatggtt 720

aacttcccct taaaccttac ttttaaaata ataattaaat acncaataca gtgaaatgcc 780

ttctgtatgg atttaccatg cacatgtttg gagtccaaag aaataataac caaagacaga 840

atttgccttc tgtaaaattt tagttataaa tctggcccat tattggggaa tgaaggaaag 900

gcaatgcctg tgtatttttc tggtgaggaa cttttccctt tccccggaat tccaattttt 960

tcccngaagg cctggatccg ggaataaatt atgaaaatta gggcttccct tttccaaatt 1020

ccaaagtttt cnngtccatg ttncagaaaa attaaaaaca ccagccccca agggnagccn 1080

tatttgactt tagaattaag gaaaggggaa ggnccattac tcatttggtc aaaacttnga 1140

tatcactttg tcccctaaaa accttcccat tttttttaaa ttctgccagg ttaagagcag 1200

taggtgtctc attaggaggg gaggtaacgc tcacncanag ggtaaaaatg aaagtaggag 1260

ggaantcaaa ggaattnccn ccagaactgg ntaggcccag ntaagcacac atcattttag 1320

gctcagtnca cttcagcata gtacaangtg atcttttgga tatcgnggat taatctaaga 1380

aactgtttac tgtgtttcat atattggctt attgggcttc aattgtctta ttatccttaa 1440

taagccaatt gaangagcat aatgattttg agaatgattt cttaaaaatc attcagatta 1500

tttttgaatg acttattaaa acataagttt tcgtattgta gaaaactcag ttntcagtaa 1560

taactatgat gttactgtan gcttggacac ataggtccat tgtgcacttg gatatacttt 1620

gaaancccc aaaaaaaaaa aaaaaaaaaa aaaaa 1655

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<220>
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<210> 15
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
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ccttgacaga ctctcagct 19

<210> 16
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<210> 17
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<212> DNA
<213> Artificial Sequence

<220>
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<213> Artificial Sequence

<220>
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<210> 19
<211> 23
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<213> Artificial Sequence

<220>
<223> Oligonucleotide designed to act as primer for amplifying full length rat SS169 cDNA.

<400> 19
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<210> 20
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide designed to act as primer for amplifying cDNA derived from rat gastrocunemius muscle.

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<210> 21
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
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<210> 22
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<213> Rattus norvegicus

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ctg atg ctg tgg ggc tca gga aag gca ttc tcc gtg gac tta gca tca 96
Leu Met Leu Trp Gly Ser Gly Lys Ala Phe Ser Val Asp Leu Ala Ser
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gag gcc tcc gag ttt gga gca gaa agc ttg cag tcc cca ccc aca acc 144
Glu Ala Ser Glu Phe Gly Ala Glu Ser Leu Gln Ser Pro Pro Thr Thr
5 10 15

aga gaa gag aag tca gcc acg gag ctt gca gct aag ctc ctg ctt ctt 192
Arg Glu Glu Lys Ser Ala Thr Glu Leu Ala Ala Lys Leu Leu Leu Leu
20 25 30 35

gat gat ctg gtg tcc ttg gag aat gat gtg ttt gag acc aag aag aag 240

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Asp Asp Leu Val Ser Leu Glu Asn Asp Val Phe Glu Thr Lys Lys Lys
                40                  45                  50

aga agc ttc tct ggc ttc ggg tct ccc ctt gac aga ctc tcg gct ggg      288
Arg Ser Phe Ser Gly Phe Gly Ser Pro Leu Asp Arg Leu Ser Ala Gly
            55                  60                  65

tct gta gag cat aga ggg aaa caa agg aga gta gtt gat cat tca aaa      336
Ser Val Glu His Arg Gly Lys Gln Arg Arg Val Val Asp His Ser Lys
        70                  75                  80

aag cga ttt ggt att ccc atg gat cga att ggt aga aac cgt ctc tcc      384
Lys Arg Phe Gly Ile Pro Met Asp Arg Ile Gly Arg Asn Arg Leu Ser
    85                  90                  95

agt tcc agg ggc tga                                                 399
Ser Ser Arg Gly
100
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<210> 23
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<212> PRT
<213> Rattus norvegicus

<400> 23

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Met Leu Asp Trp Arg Leu Ala Ser Ala His Phe Leu Leu Ala Met Ile
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Leu Met Leu Trp Gly Ser Gly Lys Ala Phe Ser Val Asp Leu Ala Ser
            -10                 -5                  -1  1

Glu Ala Ser Glu Phe Gly Ala Glu Ser Leu Gln Ser Pro Pro Thr Thr
    5                   10                  15

Arg Glu Glu Lys Ser Ala Thr Glu Leu Ala Ala Lys Leu Leu Leu Leu
20                  25                  30                  35

Asp Asp Leu Val Ser Leu Glu Asn Asp Val Phe Glu Thr Lys Lys Lys
                40                  45                  50

Arg Ser Phe Ser Gly Phe Gly Ser Pro Leu Asp Arg Leu Ser Ala Gly
            55                  60                  65

Ser Val Glu His Arg Gly Lys Gln Arg Arg Val Val Asp His Ser Lys
        70                  75                  80

Lys Arg Phe Gly Ile Pro Met Asp Arg Ile Gly Arg Asn Arg Leu Ser
    85                  90                  95

Ser Ser Arg Gly
100
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<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonuclotide designed to act as primer for amplifying rat SS169 cDNA fragment.

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<210> 25
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<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide designed to act as primer for amplifying rat SS169 cDNA fragment.

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